## 106-MILE SITE BIBLIOGRAPGHY THROUGH AUGUST 1992

EPA Contract No. 68-C8-0105 Work Assignment 3-121, Amendment 1

Submitted to

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Wetlands, Oceans, and Watersheds
Washington, DC

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#### 106-MILE SITE REPORTS AND REFERENCES

The following list of reports, publications, and other references has been compiled in support of data interpretation efforts for the 106-Mile Site. The list is comprehensive for the EPA 106-Mile Site Monitoring studies. It also includes NOAA reports that have been received by Battelle. Reports that are in preparation are noted and will be updated as they become available. Participants in the program are asked to review this listing and provide updated references, along with a copy of the report or publication to Carlton Hunt for inclusion in a master reference file.

Please note that all EPA reports developed by contractors must be cited as EPA documents. If EPA has published the report as an official EPA publication, the report must be cited with the appropriate EPA and publication number and date. If not, the following format must be followed:

For reports submitted after the EPA Office of Water reorganization:

EPA. Date. Title. U.S. Environmental Protection Agency, Oceans and Coastal Division, Washington, D.C.

For reports submitted before the EPA Office of water reorganization:

EPA. Date. Title. U.S. Environmental Protection Agency, Oceans and Coastal Division (formerly OMEP), Washington, D.C.

In the following list of reports, those that are have been or are in the process of being published by EPA are marked with an asterisk (\*), and the correct EPA report citation is included under the EPA publications listing.

Finally, the references included in Part I include those available prior to August 1990. In Part I, the codes listed below are used to identify the report type.

### REPORT CODES

IR = Interpretive Report

DR = Data Report

SR = Survey Report

DB = Data Base Report

RTC = Report to Congress

PD = Planning Document

SUM = Summary Report

SP = Survey Plan

OA = Quality Assurance Plans

Reports submitted since August 1990 and a limited set of relevant articles recently identified are included in Part II.

Ultimately, reports will be organized by relevant monitoring and research topics.

## PART I REPORTS PRIOR TO AUGUST 1990

- \*Battelle. 1990. Final Report Summer 1988 106-Mile Site Survey. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 1-04.
- \*SAIC/Battelle. 1989. Summary of Characteristics of Municipal Sludges Dumped at the 106-Mile Site. A report to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 7.
- \*Battelle. 1989. Final Report Contaminant Body Burdens in Mesopelagic Fish (Myctophidae)
  Collected Near the 106-Mile Site. A report submitted to the U.S. Environmental
  Protection Agency under Contract No. 68-C8-0105. Work Assignment 38.
- SR Battelle. 1989. Initial Survey Report for Farfield Survey of the 106-Mile Site—October 1989.

  A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 43.
- \*Battelle. 1989. Final Report for 106-Mile Deepwater Dumpsite Winter 1988 Survey. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 2-105.
- DR Battelle. 1989. Draft Site Condition Report for Farfield Survey of the 106-Mile Site—October 1989. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 1-43.
- DB SAIC/Battelle. 1989. Users Guide for Data Management and Reporting for Dumping of Municipal Sludge. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 7.
- IR Battelle. 1988. Final Report of Analytical Results of the 106-Mile Deepwater Sludge Dumpsite Survey—Summer 1986. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-31.
- \*Battelle. 1988. Final Report for Nearfield Monitoring of Sludge Plumes at the 106-Mile Deepwater Municipal Sludge Site: Results of a Survey Conducted August 31 through September 5, 1987. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-63.
- DR Battelle. 1988. Site Condition Report for Nearfield Fate Monitoring at the 106-Mile Deepwater Municipal Sludge Site: Winter 1988 Oceanographic Survey March 1-5, 1988. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-105.

- \*Battelle. 1988. Draft Revision to Initial Report on Results of Studies Conducted in the Vicinity of 106-Mile Deepwater Municipal Sludge Site. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-22.
- SR Battelle. 1988. Initial Survey Report for Nearfield Fate Monitoring at the 106-Mile Deepwater Municipal Sludge Site: Winter 1988 Oceanographic Survey, March 1-5, 1988. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-105.
- \*Battelle. 1988. Determination of Sludge Dumping Rates for the 106-Mile Site. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-111. 43 pp.
- SR Battelle. 1988. Initial Survey Report on Summer 1988 Oceanographic Survey to the 106-Mile Site September 10 to 20, 1988. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-118.
- \*Battelle. 1988. Final Data Report for Analysis of Water Quality Samples Taken During a New York Bight Survey in July 1988. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 2-135.
- \*Battelle. 1988. Characteristics of Sewage Sludge from the Northern New Jersey-New York City Area, August 1988. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 2-111.
- SR Battelle. 1987. **Draft** Initial Survey Report for Plume Tracking Survey for the 106-Mile Deepwater Municipal Sludge Site in Support of the EPA 106-Mile Site Monitoring Program. August 29-September 5, 1987. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-63.
- DR Battelle. 1987. Site Condition Report for Plume Tracking Survey for the 106-Mile Deepwater Municipal Sludge Site Monitoring Program in Support of the EPA 106-Mile Site Monitoring Program. August 29-September 5, 1987. A Report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-63.
- IR Battelle. 1987. Final Report on Analysis of Baseline Seawater and Sediment Samples from the 106-Mile Deepwater Municipal Sludge Site. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319.
- SP Battelle. 1990. Survey Plan for Evaluation of Trace-Metal Levels in Ambient Waters and Discharges to New York/New Jersey Harbor for Waste Load Allocation. A report submitted to the Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 2-202.

- PD Battelle. 1990. Monitoring, Research, and Surveillance Plan for the 106-Mile Deepwater Municipal Sludge Dump Site and Environs. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 2-14.
- PD Battelle. 1990. Final Field Plan for the Sediment Trap Program of the 106-Mile Site Monitoring Program. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 1-110.
- SP Battelle. 1989. Survey Plan for Farfield Survey of the 106-Mile Site-October 1989. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 43.
- SP Battelle. 1988. Final Survey Plan for Summer 1988 Oceanographic Survey to the 106-Mile Site September 10-17, 1988. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-118.
- SP Battelle. 1988. Final Survey Plan for Winter 1988 106-Mile Site Nearfield Fate Survey. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-105.
- SP Battelle. 1987. Final Survey Plan for Plume Tracking for the 106-Mile Deepwater Municipal Sludge Site in Support of the EPA 106-Mile Site Monitoring Program. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 63.
- SP Battelle. 1986. Survey Plan for the 106-Mile Deepwater Dumpsite Survey—Summer 1986. A Final Survey Plan submitted to the U.S. EPA under contract No. 68-03-3319. Work Assignment 31. 42 pp.
- \*Battelle. 1990. Report to Congress on the 106-Mile Site Monitoring Program: Monitoring Results 1988 to 1990. A report submitted to the Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 2-113.
- \*Battelle. 1990. Report to Congress on Progress in Stopping Ocean Dumping under the Ocean Ban Act of 1988. Fiscal Year 1989. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 1-105.
- \*Battelle. 1990. Report to Congress on Surveillance and Enforcement of Sewage Sludge Dumping. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 27.
- \*Battelle. 1990. Report to Congress on Monitoring Program in Response to Section 104B(j)(4)(a) of the Ocean Dumping Ban Act. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 33.

- PD Battelle. 1989. Recommendations for Field Studies at the 106-Mile Site to Confirm Specific Conditions Within the Sewage Sludge Disposal Permits. A report to the U.S. Environmental Protection Agency under Contract No.8-C8-0105. Work Assignment 7.
- PD \*Battelle. 1989. Proceedings of the Ocean Dumping Workshop for the 106-Mile Site held March 28-30, 1989, in Ocean City, NJ. A report to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 14.
- PD \*Battelle. 1989. Strategy for Monitoring, Research, and Surveillance of the 106-Mile Deepwater Municipal Sludge Site. A report to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 14.
- PD \*Battelle. 1988. Final Draft Monitoring Plan for the 106-Mile Deepwater Municipal Dumpsite. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-22.
- \*Battelle. 1988. Final Draft Implementation Plan for the 106-Mile Deepwater Municipal Sludge Site Monitoring Program. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-22.
- PD Battelle. 1989. Revised Final Draft Permittee Monitoring Requirements: 106-Mile Deepwater Municipal Sludge Site Monitoring Program. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-111.
- PD Battelle. 1988. Draft Final Report on Review and Evaluation of Available Methods for Assessing Short-Term Biological Effects at the 106-Mile Deepwater Municipal Sludge Site. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-22.
- PD Battelle. 1987. Evaluation of and Recommendations for Bioaccumulation Studies for the 106-Mile Deepwater Municipal Sludge Monitoring Program. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 47. 33 pp.
- PD Battelle. 1987. Strategy for Plume Tracking Methods at the 106-Mile Site. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 63. 26 pp.
- QA Battelle. 1987. Quality Assurance/Quality Control (QA/QC) Document for the 106-Mile Deepwater Dumpsite Monitoring Program. A Field Quality Assurance Manual submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 45. 11 pp.
- QA Battelle. 1987. Analytical Procedures in Support of the 106-Mile Deepwater Municipal Sludge Site Monitoring Program. A quality assurance plan submitted to the U.S. EPA under Contract No. 68-03-3319. Work Assignment 21. 19 pp.

- QA Battelle. 1989. Sampling and Quality Assurance/Quality Control Plan for Tier 2 Permitting Monitoring: Expendable Current Profiler (XCP) Measurements at the 106-Mile Site. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 7.
- QA Battelle. 1990. Evaluation of Trace-Metal Levels in Ambient Waters and Discharges to New York/New Jersey Harbor for Wasteload Allocation. A quality assurance plan submitted to the Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 2-202.
- QA Battelle. 1990. Supplemental Quality Assurance Project Plan for Evaluation of Trace-Metal Levels in Ambient Waters and Discharges to New York/New Jersey Harbor for Waste Load Allocation. A report submitted to the Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 2-202.
- SR Battelle. 1991. Initial Survey Report for New York/New Jersey Waste Load Allocation Program January 1991 Ambient Evaluation Survey. A report submitted to the Environmental Protection Agency under Contract No. 68-C8-0105. Work Assignment 2-202.
- SR Battelle. 1990. Survey Report for 106-Mile Site Sediment Trap Program Mooring
  Deployment Survey May 1990. A report submitted to the U.S. Environmental
  Protection Agency under Contract No. 68-C8-0105. Work Assignment 1-110.
- \*SAIC/Battelle. 1988. Final Report on Current Meter Measurements at the 106-Mile Site in Support of Municipal Waste Disposal. A report submitted to the U.S. Environmental Protection Agency under Contract No. 68-03-3319. Work Assignment 1-46.

# PART II. Additions: August 1990 through July 1992

### **Quality Assurance Project Plans**

- Battelle. 1990. Quality Assurance Project Plan for the 106-Mile Site Sediment Trap Program: Equipment Preparation and Mooring Deployment and Recovery. A draft quality assurance project plan submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 1-110.
- Battelle. 1990. Quality Assurance Project Plan for the 106-Mile Site Sediment Trap Program: Sample Analysis. A draft quality assurance project plan submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-110.
- SAIC/Battelle. 1991. Quality Assurance Project Plan for the 106-Mile Site Sediment Trap Program: Current Meter Analyses. A draft quality assurance project plan submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-110.

### **Survey Plans**

- Battelle. 1990. Survey Plan for deployment of the sediment trap/current meter moored arrays in the vicinity of the 106-Mile Site. A survey plan submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 1-110.
- Battelle. 1990. Survey Plan for the 106-Mile Site Sediment Trap Program: September 1990 Survey for Servicing Moored Arrays. A survey plan submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 1-110.
- Battelle. 1990. Survey Plan for the 106-Mile Site Sediment Trap Program: November 1990 Survey for Servicing Moored Arrays. A survey plan submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-110.
- Battelle. 1991. Survey Plan for the 106-Mile Site Sediment Trap Program: June 1991 Survey for Recovery of Moored Arrays. A draft survey plan submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-110.

## **Survey Reports**

Battelle. 1990. Survey Report for the 106-Mile Site Sediment Trap Program: September 1990 Survey for Moored Arrays. A draft report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 1-110.

- Battelle. 1990. Survey Report for the 106-Mile Site Sediment Trap Program Mooring Servicing Survey, November and December 1990. A survey report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-110.
- Battelle. 1991. Survey Report for the 106-Mile Site Sediment Trap Program Mooring Recovery Survey, June 1991. A survey report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-110.

## **Imagery Reports**

- SAIC/Battelle. 1992. Data Report on Acquisition and Processing of Drifter and Imagery Data for the 106-Mile Site, October 22, 1989, through March 31, 1990. A final data report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-117.
- SAIC/Battelle. 1992. Data Report on Acquisition and Processing of Drifter and Imagery Data for the 106-Mile Site, April 1, 1990, through November 30, 1990. A final data report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-117.
- SAIC/Battelle. 1992. Acquisition and Processing of Drifter and Imagery Data for the 106-Mile Site, December 1, 1990, through July 31, 1991. A final data report prepared by SAIC for Battelle submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-117.

#### Surface Drifters

- Battelle. 1991. Satellite-Tracked Surface-Layer Drifters Released at the 106-Mile Site: October 1989 through December 1990. A draft data report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-41.
- Battelle. In Preparation. Satellite-Tracked Surface-Layer Drifters Released at the 106-Mile Site: January 1990 through July 1991. A draft data report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-41.
- Battelle. In Preparation. Letter Report Summarizing Satellite-Tracked Surface Drifters Released at the 106-Mile Site. Submitted to the U.S. Environmental Protection Agency and EPA Region II under contract 68-C8-0105. Work Assignment 3-41.

#### XBT Reports

SAIC/Battelle. 1992. The XBT Portion of the Operating Program for the 106-Mile Site. Final data report No. 1 submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-07.

- SAIC/Battelle. 1992. The XBT Portion of the Operating Program for the 106-Mile Site. Final data report No. 2 submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-07.
- SAIC/Battelle. 1992. The XBT Portion of the Operating Program for the 106-Mile Site. Final data report No. 3 submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-07.

### **XCP Reports**

- Battelle. 1992. Data Report for the Tier 2 Permittee Monitoring: Expendable Current Profiler (XCP) Measurements at the 106-Mile Site. A final data report No. 1 submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-07.
- Battelle. 1992. Data Report for the Tier 2 Permittee Monitoring: Expendable Current Profiler (XCP) Measurements at the 106-Mile Site December 1990 through June 1991. A final data report No. 2 submitted to the U.S. Environmental Protection Agency under contract 68-C8-0105. Work Assignment 3-07.
- Battelle. 1992. Letter Report Summarizing the XCP Current Profile Data. Submitted to the U.S. Environmental Protection Agency and EPA Region II under contract 68-C8-0105. Work Assignment 3-07.

### **Current Meter Reports**

- EPA. 1982. Analysis of Current Meter Records at the Northwest Atlantic 2800 Meter Radioactive Waste Dumpsite. U.S. EPA Office of Radiation Programs. EPA 520/1-82-002.
- SAIC/Battelle. 1991. Analyses of Current Meter Records from the First Deployment of the 106-Mile Site Sediment Trap Program (May through November, 1990). A draft final data report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-110.
- SAIC/Battelle. 1992. Analyses of Current Meter Records from the Second Deployment of the 106-Mile Site Sediment Trap Program (November 1991 through June 1992). A **draft** final data report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-110.
- Battelle. 1992. Real-Time Current Meter Mooring at the 106-Mile Site. A final data report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-40.

### Sludge Characterization Reports

Battelle. 1992. Analysis of Sewage Sludge for Trace Contaminants. A draft final report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-212.

### **Interpretive Reports**

- Battelle. 1992. 106-Mile Site Monitoring Data Summary Report. A final report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 3-46.
- Battelle. 1991. Determination of Sludge Settling Rates. A final report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-108.
- Battelle. 1991. Contaminants in Bottom Fish Collected Near the 106-Mile Site. A final report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-38.
- Battelle. 1991. Farfield Survey of the 106-Mile Site—October 1989. A final report submitted to the U.S. Environmental Protection Agency under Contract 68-C8-0105. Work Assignment 2-43.
- Battelle. 1991. The 106-Mile Site Sediment Trap Program: Chemical Analysis of Samples Collected in September 1990. A draft final report submitted to the U.S. Environmental Protection Agency. Work Assignment 2-110.
- Battelle. 1992. The 106-Mile Site Sediment Trap Program: Sediment Trap Data Report and Preliminary Interpretation. A draft final report submitted to the U.S. Environmental Protection Agency. Work Assignment 3-110.
- Battelle/ASA/SAIC. In Preparation. Synthesis and Modeling of Sludge Transport from the 106-Mile Site. Work Assignment 3-119.
- Battelle. In Preparation. Synthesis of sediment trap results from the 106-Mile Site Monitoring Program. Work Assignment 3-110.

#### Peer-reviewed papers/Thesis/Abstracts

#### <u>Theses</u>

Young, R.R. 1990. Prevalence and severity of shell disease among deep-sea red crabs of the Middle Atlantic Bight in relation to ocean dumping of sewage sludge. Masters Thesis. Marine Sciences Research Center, State University of New York at Stony Brook. Stony Brook, NY.

Hernandez, D,. 1991. The Determination of Settling Velocities for Sewage Sludge Disposal at 106-Mile Site. Masters Thesis, Texas A & M University, College Station, TX. 175 p.

### Peer Reviewed Papers

## 106-Mile Site Program

- Fry, V. A., and B. Butman. 1991. Estimates of the Seafloor Area Impacted by Sewage Sludge Dumped at the 106-Mile Site in the Mid-Atlantic Bight. Mar. Environ. Res., 31, 141-160.
- Redford, D., D. Pabst, and C. Hunt. 1992. In Press. Monitoring of the Fate, Transport, and Effects of Sewage Sludge Disposed at the 106-Mile Deepwater Municipal Sludge Dump Site. Chemistry & Ecology.
- Hunt C., S. McDowell, D. Shea, R. Hillman, W. Trulli, T. Berger, D. Redford, and D.
   Pabst. 1992. In Press. Transport of Sewage Sludge from the 106-Mile Site—Results from an October 1989 Survey. Chemistry & Ecology.
- Bonner, J., A. Ernest, D.S. Hernandez, R.L. Autenreith, and D. Redford. 1992. In Press. Transport of sewage sludge in a mixed water column. Chemistry & Ecology.

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- Santoro, E.D., and T. J. Fikslin. 1987. Chemical and Toxicological Characteristics of Sewage Sludge Ocean Dumped in the New York Bight. Marine Poll. Bull. <u>18</u>(7), 394-399.
- Venkatesan, M.I., S. Steinberg, and I.R. Kaplan. 1988. Organic geochemical characterization of sediments from the continental shelf south of New England as an indicator of shelf edge exchange. Continental Shelf Res. 8(5-7). 905-924.
- Biscaye, P.E., R.F. Anderson, and B. Deck. 1988. Fluxes of particles and constituents to the eastern United States continental slope and rise: SEEP-I. Continental Shelf Res. 8(5-7). 855-904.
- Walsh, J.J., P.E. Biscaye, and Gabriel Csanady. 1988. The 1983-1984 Shelf Edge Exchange Process (SEEP)—I experiment: hypotheses and highlights. Continental Shelf Res. 8(5-7). 435-456.
- Reid, R.N., S.A. Fromm, A.B. Frame, D. Jefferies, and J.J. Vitaliano. 1991. Responses of the benthic macrofauna to Phaseout of Sewage Sludge Disposal in the Inner New York Bight. In Proceedings of the Seventh Symposium on Coastal and Ocean Management, Vol. 1. Edited by O.T. Magoon, H. Converse, V.Tippie, L.T. Tobin, and D. Clark. Am. Soc. Civil Eng., New York. pp. 1859-1873.
- Moore, D.C., and Rodger, G.K. 1991. Recovery of a sewage sludge dumping ground. II Macrobenthic community. Marine. Ecol. Prog. Series. 75. pp. 301-308.

- Walker, H.A., J.F. Paul, and V. Beirman, Jr. 1987. Methods for Waste Load Allocation of Municipal Sewage Sludge at the 106-Mile Ocean Disposal Site. Environmental Toxicology and Chemistry. 6, pp. 475-489.
- Lavelle, J.W., E. Ozturgut, E.T. Baker, D.A. Tennant, and S. L. Walker. Settling Speeds of Sewage Sludge in Seawater. Environ. Sci. Technol. 22, pp. 1201-1207.
- Churchill, J.H., and P.C. Cornillon. 1991. Gulf stream Water on the shelf and upper slope north of Cape Hatteras. Continental Shelf Res. 11, pp. 409-431.
- Butman, B. 1988. Downslope Eulerian mean flow associated with high-frequency current fluctuations observed on the outer continental shelf and upper slope along the northeastern United States continental margin: implications for sediment transport. Continental Shelf Res. 8(5-7). pp. 801-840.

## **Published Abstracts**

- Butman. B., V. Fry, and M. H. Bothner. 1992. Estimates of the Sea Floor Area Impacted by Sewage Sludge Dumped at the 106-Mile Site in the Middle Atlantic Bight and Results from Long-term Moored Current and Sediment Trap Observations. *Eos. AGU*, 72(51). Ocean Sciences Meeting Supplement. p 82.
- Robb, J.M. and J. F. Grassle. Offshore-trending Microtopographic Ridges and Forrows on the Upper Continental Rise within the DWD-106 Area in the New York Bight. *Eos. AGU*, 72(51), Ocean Sciences Meeting Supplement. p 82.
- Bothner, M.H., W.M. d'Angelo, and J. F. Grassle. 1992. Silver as a Tracer of Sewage Sludge in Sediments at the Deep Water Municipal Sludge Dumpsite 106 off New York. *Eos. AGU*, 72(51), Ocean Sciences Meeting Supplement. p 83.
- Takada, H., B.W. Tripp, C. H. Clifford, and J. W. Farrington. 1992. Detection and Implications of Sewage Sludge Organic Chemicals in the Sediments at Deep Water Dumpsite 106. Eos. AGU, 72(51), Ocean Sciences Meeting Supplement. p 83.
- Hill, R.T., I. Knight, M. Anikis, W.L. Straube, and R.R. Colwell. 1992. Benthic Distribution of Sludge Indicated by *Clostridium perfringens* Spores at a Sewage Sludge Disposal Site off the Coast of New Jersey. *Eos. AGU*, 72(51), Ocean Sciences Meeting Supplement. p 83.
- Baker, J., M.W. Feeley, and R.A. Cooper. 1992. Accumulation of Trace Elements and PCB congeners in Sediments and the Deep-Sea Crab (*Chaceon quinquedens*) Near the 106 Mile Disposal Site. *Eos. AGU*, 72(51), Ocean Sciences Meeting Supplement. p 83.
- Small, E.B., R.A. Cooper, J. Gaines, and T. Nerad. 1992. Microbial Indicators of Sediment Contamination in Deepwater Canyons of the Continental Shelf. *Eos. AGU*, 72(51), Ocean Sciences Meeting Supplement. p 83.

- Feeley, M.W., R.A. Cooper, L.L. Stewart, J.E. Baker, and R.A. Bullis. 1992. Shell Disease and Contaminant Levels in the Deep-Sea Red Crab (*Chaceon quinquedens*) from the NW Atlantic. *Eos. AGU*, 72(51), Ocean Sciences Meeting Supplement. p 83.
- Sayles, F.L., and W.R. Martin. 1992. Evaluation of the Influence of Sludge Disposal on the Benthic Metabolic Rates at Deep Water Dump Site 106 on the Mid-Atlantic Continental Slope. Eos. AGU, 72(51), Ocean Sciences Meeting Supplement. p 83.
- Van Dover, C. L., J.F. Grassle, B. Fry, and R. Garritt. 1992. Stable Isotope Evidence for the Entry of Sewage-Derived Organic Material into a Deep-Sea Food Web. *Eos. AGU*, 72(51), Ocean Sciences Meeting Supplement. p 83.
- J. F. Grassle. 1992. Affects of Sewage Sludge on Deep-Sea Communities. Eos. AGU, 72(51), Ocean Sciences Meeting Supplement. p 84.
- Straube, W.L., M. Takizawa, R.T. Hill, and R.R. Colwell. 1992. Response of Near Bottom Pelagic Bacterial Community of the Deepwater Sewage Disposal Site to Deep-Sea Conditions. Eos. AGU, 72(51), Ocean Sciences Meeting Supplement. p 84.
- Hecker, B. 1992. Megafaunal Assemblages at 2600 m on the Upper Rise off New Jersey. Eos. AGU, 72(51), Ocean Sciences Meeting Supplement. p 84.
- Shay, P.T., L.J. Peitrafessa, K.H. Su, C.N. Flagg, and R.W. Houghton. 1992. Low-Frequency Oscillations on the Outer Shelf. *Eos. AGU*, 72(51), Ocean Sciences Meeting Supplement. p 85.
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